

STATEMENT OF PROJECT OBJECTIVES
Massachusetts Department of Energy Resources (DOER)
Mass Solar: Making it EZ

A. PROJECT OBJECTIVES

Massachusetts is committed to developing the solar industry, and has demonstrated commitment up to the highest level of government. In 2007 when Governor Patrick took office he set a goal of installing 250 MW of solar in the Commonwealth by 2017. When this goal was set there was only about 4 MW of solar installed throughout Massachusetts. Today Massachusetts has 54 MW of solar installed, with another 38 MW in the pipeline to be installed by the end of 2011. In order to grow the solar industry and reach the Governor's goal, Massachusetts has made significant progress in bringing down the installed costs for solar by its strong commitment to the industry and multiple incentives mechanisms.

The 351 cities and towns in Massachusetts each act through a local governmental body that possesses authority over local issues, including limited home rule authority. Most county governments were abolished in the 1990s, although a handful remains. This decentralization means that solar installers have to deal with different electrical and building inspector in each town, with varying permit applications and fees.

Coupled with the current solar programs and incentives available in Massachusetts, Mass Solar will focus on identifying and implementing best practices for streamlined permitting, interconnection, financing and zoning of solar PV projects in the five selected pilot communities. In addition, the study will aim to determine methods to replicate these best practices on a larger scale. Under Mass Solar, DOER expects to demonstrate significant reduction in installation costs of PV.

B. PROJECT SCOPE

This project includes municipal partners from Western, Central and Eastern Massachusetts. According to the 2010 U.S. Census, the total population of all of the partner communities is 753,929 residents. These communities will participate in the development and demonstration of the deliverables as described in the proposed tasks below.

C. TASKS TO BE PERFORMED

Task 1.0 PERMITTING AND INTERCONNECTION PROCESSES

Through the award of the Sun Shot Rooftop Solar Challenge grant, DOER will undertake three tasks focused on streamlining and standardizing permitting for rooftop solar projects and providing better information on interconnection.

Task 1.1 Develop model local permitting process –

Hire a consultant that will select 50 towns and cities and perform a comprehensive survey of permitting practices (e.g., fees, applications, information access, process time, and inspection procedures). Identify best practices and develop a model permit process for rooftop systems 300kW and less. A model permit for residential systems 10kW and less will also be established based on the work completed by Solar ABCs: Expedited Permit Process for PV Systems, and updated based on the findings of the study and structural work completed in Task 1.2. During Q1 the consultant will be retained, Q2 and Q3 the model

permit package will be developed, the goal for Q4 will be to make available model permitting practices for all communities.

Task 1.2 Develop model guidance for structural review –

Hire a consultant to review the building stock of residential homes in Massachusetts. The consultant will perform engineering analysis and develop a set of guidelines that ensure structural integrity and clarify what kinds of roofing systems require engineering and additional support members and what kinds of roofs meet the conditions for a solar array as-is. The design standards will help building inspectors to reduce the review for *most* residential rooftops 10kW or less. The standards will be provided as guidance to the building inspectors in the 351 communities across Massachusetts. During Q1 the consultant will be retained, Q2 and Q3 the model structural review guidance will be developed, the goal for Q4 will be to make available the model structural review process, and structural guidance provided to all communities in Massachusetts.

Task 1.3 Update Interconnection Website –

Hire a consultant to revise the existing website to develop user friendly, expanded content on interconnection and net metering. The consultant will organize the data and make it available on the website. In addition to a project proponent being able to follow the progress of their own application, the posting of aggregated process metrics will be used to foster accountability for the process overall. In collaboration with the utilities, the website will also be updated to provide clear protocols for the conditions and circumstances under which the utilities require distribution network upgrades. During Q1 the consultant will be retained, Q2 work with the utilities to gain access to additional content will be accomplished; Q3 updates to website will be finalized.

Task 2.0 FINANCING OPTIONS

The goal of this task is to develop alternative financing options for residential solar PV.

Task 2.1 Community Solar Garden –

Hire a contractor to explore the different models currently being pursued in the U.S. and develop one or more recommended models for implementation, exploring the different issues of financing, insurance, utility interconnection, tax considerations and structures, federal and state regulations, potential buy-in costs and fees, available incentives, potential profits, and control of the renewable energy credits and the claim on the clean attributes. During Q1 DOER will retain a consultant, Q2 will focus on the development of solar garden model process, Q3 and Q4 DOER will work with three communities to launch a pilot solar garden and demonstrate the model process.

Task 2.2 Education and Outreach to Financial Institutions –

Hire a contractor to identify the perceived barriers of local financial institutions to solar PV and develop a program of education and outreach to remove those barriers. The contractor will develop a survey for distribution to local financial institutions to identify the perceived barriers. The contractor will take the results of the survey and develop an education and outreach program. Working with our Green Communities Division Regional Coordinators, MassDevelopment regional staff and the Massachusetts Bankers Association (MBA), Mass Solar will deliver regional workshops, and webinars to ensure

widespread education and outreach. Included in the education and outreach will be surveys to assess the level of understanding obtained by the financial institutions from the education sessions and solicit suggestions for opportunities for public/private partnerships. Four regional workshops will be held, targeting bankers and decision makers to address the educational deficiencies identified in the surveys. A state-wide webinar will also be held. The contractor will prepare a report of lessons learned and follow-up activities, including recommendations for public/private partnerships. In Q1 the consultant will be retained, it is expected that in Q2 the consultant will develop the materials for the surveys and have ten financial institutions participate in the survey, they will then make recommendations on the issues that need to be addressed; in Q3 the materials for the workshops will be developed. In Q4 four workshops and a webinar will be held.

Task 3.0 PLANNING AND ZONING

The goal of these tasks are to develop model bylaws and accompanying best practices. Make available model bylaws and best practices to stakeholders.

Task 3.1 Develop model bylaw regarding solar access –

Retain appropriate land use and legal expertise to interpret Chapter 40A Section 9B¹ of the state Zoning Act and, based on that interpretation, produce an annotated model bylaw/ordinance and accompanying guidance document. This process will involve making the bylaw available for public comment, and providing model zoning. It is expected that in Q1 the consultant will be retained, in Q2 the model guidance document will be drafted, Q3 the document will be shared through a webinar, the goal of Q4 make the model bylaw available to all partner communities.

Task 3.2 Develop model bylaw regarding solar rights.

Retain appropriate land use and legal expertise to interpret Chapter 40A Section 3² of the state Zoning Act and relevant case law, and based on that interpretation, produce an annotated model bylaw/ordinance and accompanying guidance document. This process will involve making the bylaw available for public comment, and providing model zoning. It is expected that in Q1 the consultant will be retained, in Q2 the model guidance document will be drafted, Q3 the document will be shared through a webinar, the goal of Q4 is make the model bylaw available to all partner communities.

Task 4.0 – Project Management & Reporting

Submit project progress reports, financial reports, and other deliverables provided in accordance with the Federal Assistance Reporting Checklist DOE F 4600.2 and the instructions therein.

Complete a final Market Assessment and input the data into the US DOE/NREL Solar Metrics Rooftop Solar Challenge Database. The Market Assessment will be completed by the last day of the project year and will reflect substantial and demonstrable improvements in market conditions to be achieved through the above tasks. Independent industry verification of these results will also be provided. This verification

¹ Ch 40A Section 9B <http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40a/Section9b>

² Ch 40A Section 3 <http://www.malegislature.gov/Laws/GeneralLaws/PartI/TitleVII/Chapter40a/Section3>

will be in the form of a letter signed by representatives from at least 2 companies in the residential PV business and at least 2 companies in the commercial PV business representing a significant portion of PV sales in the participating jurisdictions. Mass Solar will also work closely with DOE/NREL as they independently verify that the results reported by Mass Solar at the end of the project year are accurate.